

REMARKS

Claims 1-27 were pending in this application.

Claims 1-27 have been rejected.

Claims 1, 12, and 20 have been amended as shown above.

Claims 28 and 29 have been added.

Claims 1-29 are now pending in this application.

Reconsideration and full allowance of Claims 1-29 are respectfully requested.

I. REJECTION UNDER 35 U.S.C. § 101

The Office Action rejects Claims 1-27 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. In particular, the Office Action asserts that the claims “produce no tangible result” because only “identification and selection of parameters occur without any output of the parameters in a tangible form.” Also, the Office Action asserts that the claims “do not allow the usefulness of the invention to be realized as the identification and selection of parameters can be reasonably interpreted as occurring with a processor without any method to access the parameters.” (*Office Action, Page 2, Section 3*).

The Applicant has amended Claims 1, 12, and 20 as shown above. Claims 1, 12, and 20 as amended recite outputting “one or more model parameters” for use in “processing one or more signals.” The claims as amended do not merely recite the “identification and selection of parameters” for a model. Rather, these claims recite providing the one or more model parameters in order to process one or more signals. As a result, these claims recite subject matter

that produces a useful, concrete, and tangible result. Because of this, the Applicant respectfully submits that Claims 1-27 recite statutory subject matter.

Accordingly, the Applicant respectfully requests withdrawal of the § 101 rejection.

II. REJECTION UNDER 35 U.S.C. § 112

The Office Action rejects Claims 1-27 under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the subject matter regarded as the invention. In particular, the Office Action objects to the use of the phrase “at least substantially” in Claims 1, 12, and 20.

The Applicant has replaced the phrase “at least substantially” with the phrase “at least partially” in Claims 1, 12, and 20. This removes the language forming the basis of the § 112 rejection from Claims 1, 12, and 20.

Accordingly, the Applicant respectfully requests withdrawal of the § 112 rejection.

III. REJECTION UNDER 35 U.S.C. § 102

The Office Action rejects Claims 1, 2, 12, 13, 20, and 21 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Publication No. 2004/0057585 to Madievski et al. (“*Madievski*”). This rejection is respectfully traversed.

A prior art reference anticipates a claimed invention under 35 U.S.C. § 102 only if every element of the claimed invention is identically shown in that single reference, arranged as they are in the claims. (*MPEP* § 2131; *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567

(*Fed. Cir. 1990*)). Anticipation is only shown where each and every limitation of the claimed invention is found in a single prior art reference. (*MPEP § 2131; In re Donohue*, 766 F.2d 531, 534, 226 U.S.P.Q. 619, 621 (*Fed. Cir. 1985*)).

Madievski recites a method and device for separating mixed signals using data provided by multiple sensors. (*Abstract*). The method may include dynamically configuring communications between a processor and the sensors based on the number of sensors, determining “un-mixing parameters” based on the number of sensors, and separating at least some of the signals using the un-mixing parameters. (*Pars. [0008]-[0012]*). One technique for determining the un-mixing parameters could involve determining an “un-mixing matrix W ” based on the eigenvalues of (XX^T, R) , where X represents a matrix containing sensor samples and R represents a matrix based on assumptions imposed on the signal sources. (*Pars. [0016]-[0017] and [0043]*). The “assumptions imposed on the signal sources” could be based on whether the signal sources represent non-white, non-stationary, or non-Gaussian signal sources. (*Par. [0046]*). One technique for separating at least some of the signals using the un-mixing parameters could involve multiplying the matrix X by a transpose of the matrix W (i.e. computing $W^T X$). (*Par. [0019]*).

Madievski simply recites a process for determining how to separate multiple signals contained in a mixture of those signals. The process generally involves determining an “un-mixing matrix W ” and then using that matrix W to separate the signals. Nothing here discloses a “projection” that at least partially isolates a “first portion” of a second signal (which is associated with a first signal) from a “second portion” of the second signal (which is not associated with the

first signal). Also, nothing here discloses the identification of “one or more parameters of a model” using at least a portion of the projection. In fact, *Madievski* never once uses the terms “projection” or “project” in any way.

Moreover, the Office Action cites paragraphs [0008]-[0012] of *Madievski* as anticipating the receiving of a “projection.” The Office Action cites paragraph [0043] of *Madievski* as anticipating the identification of “one or more parameters of a model” using the projection. (*Office Action, Page 3, Section 5*). However, paragraph [0043] of *Madievski* simply recites determining the “un-mixing matrix W,” which is then used to separate the signals. If the “un-mixing matrix W” of *Madievski* is relied upon as anticipating the “model” recited in the claims, the Office Action must show that the “un-mixing matrix W” is determined using a “projection” associated with two signals (where the projection at least partially isolates two portions of one signal, one portion is associated with another signal, and the other portion is not). The Office Action has not and cannot make this showing.

For these reasons, *Madievski* fails to anticipate the Applicant’s invention as recited in Claims 1, 12, and 20 (and their dependent claims). Accordingly, the Applicant respectfully requests withdrawal of the § 102 rejection and full allowance of Claims 1, 2, 12, 13, 20, and 21.

IV. REJECTION UNDER 35 U.S.C. § 103

The Office Action rejects Claims 3, 4, 14, 15, and 22 under 35 U.S.C. § 103(a) as being unpatentable over *Madievski* in view of U.S. Patent Publication No. 2005/0015205 to Repucci et al. (“*Repucci*”). This rejection is respectfully traversed.

In *ex parte* examination of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. (MPEP § 2142; *In re Fritch*, 972 F.2d 1260, 1262, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992)). The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention is always upon the Patent Office. (MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984)). Only when a *prima facie* case of obviousness is established does the burden shift to the Applicant to produce evidence of nonobviousness. (MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993)). If the Patent Office does not produce a *prima facie* case of unpatentability, then without more the Applicant is entitled to grant of a patent. (*In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Grabiak*, 769 F.2d 729, 733, 226 U.S.P.Q. 870, 873 (Fed. Cir. 1985)).

A *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. (*In re Bell*, 991 F.2d 781, 783, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993)). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to

make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not based on the Applicant's disclosure. (*MPEP* § 2142).

Claims 3, 4, 14, 15, and 22 depend from Claims 1, 12, and 20. As shown above in Section III, Claims 1, 12, and 20 are patentable. As a result, Claims 3, 4, 14, 15, and 22 are patentable due to their dependence from allowable base claims.

Accordingly, the Applicant respectfully requests withdrawal of the § 103 rejection and full allowance of Claims 3, 4, 14, 15, and 22.

V. NEW CLAIMS

The Applicant has added new Claims 28 and 29. The Applicant respectfully submits that no new matter has been added. At a minimum, the Applicant respectfully submits that Claims 28 and 29 are patentable for the reasons discussed above. The Applicant respectfully requests entry and full allowance of Claims 28 and 29.

VI. CONCLUSION

The Applicant respectfully asserts that all pending claims in this application are in condition for allowance and respectfully requests full allowance of the claims.

SUMMARY

If any issues arise, or if the Examiner has any suggestions for expediting allowance of this application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at *wmunck@munckbutrus.com*.

The Applicant has included the appropriate fee to cover the cost of this AMENDMENT AND RESPONSE. The Commissioner is hereby authorized to charge any additional fees connected with this communication (including any extension of time fees) or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

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